ABSTRACT OF THE DISCLOSURE

A vertical load measurement device and a method for measuring a load at least partially supported by an axle of a railcar are disclosed. The measurement device includes a bearing adapter sized to be mounted between a load bearing member of the railcar and an axle bearing housing of the railcar. The beam member has a first end and a second end, at least one end being secured to the bearing adapter, and a midsection extending between the ends which supports the load applied by the load bearing member of the railcar. The midsection of the beam member is vertically spaced from the bearing adapter to allow deflection of the beam member in response to the load applied by the load bearing member. The vertical load measurement device also includes a sensor secured to the beam member which measures the deflection of the beam member.